Ensuring Reliable Networks TTTech

TTP Powernode

The TTP Development Board

Key Benefits

- Full embedded software support
- Full tool support
- Freescale MPC555 PowerPC
- Exchangeable physical layer
- Broad range of interfaces
- ams AS8202B TTP communication controller
- Available with or without housing

TTP Powernode is a high-performance, state-of-the-art single-board solution for distributed real-time systems. It supports a broad range of interfaces. The TTP development board is the basis to build up a distributed real-time network with TTP. Full embedded software and tool support is available.

Hardware Basics

TTP Powerlink has a rich set of integrated peripheral devices well suited for demanding prototyping applications. It is equipped with an ams AS8202B TTP communication controller. An integrated CAN controller provides features to design gateway units for coupling the CAN field bus with TTP.

Physical layer connectors (TTP, CAN) are mounted on separate physical layer boards stacked onto the TTP Powernode. This allows a flexible choice of interface connectors on the front panel.

The TTP Powernode can be supplied with or without housing and power supply.

Software Support

The board is supported by a wide range of embedded software and tools.

A bootloader, an operating system, different communication layer options, and a powerful library for the MPC555 I/O are available for the board.

Application Fields

- Technology Evaluation
- Product Testing
- Architecture Development

General Product Features	Freescale MPC555 PowerPC core with floating point running at 40 MHz featuring: • 1 MB RAM (256 K x 32 bit) plus 26 kB internal unit static RAM • 4 MB (1024 K x 32 bit) burstable flash plus 448 kB internal flash memory
Physical Layer	MFM/Manchester on RS 485 physical layer (4 Mbit MFM/Manchester) for TTP Supports: ISO 11898 physical layer for CAN (1 channel, Philips 82C250, RJ-11 connector)
Additional Interfaces	Serial communication interface (PCB-mounted connectors) 32 analog inputs (PCB-mounted connectors) 16 channel timer system, 2 TPU units (PCB-mounted connectors) 8 PWM channels (PCB-mounted connectors) 30 digital I/O pins (PCB-mounted connectors) On-line debug interface (BDM) 2 communication status LEDs and 5 application LEDs on the front panel Reset button on the front panel configurable as input
Environmental Operating Ranges	Operating temperature: 0 °C to +70 °C, industrial grade (-40 °C to +85 °C) on request Storage temperature: -40 °C to +85 °C
Power Requirements	5 V DC, +/- 5 % at 1 A plus 12 V DC, +/- 5 % at 150 mA (without housing) Input voltage 9 to 60 V DC at max. 10 watt and max. 1.2 A (with housing and power supply)
Dimensions	160 x 100 x 20, with housing and power supply 220 x 145 x 26 (in mm)
Weight	720 g; without housing 130 g
Form Factor	Single height standard Euro PCB
Order Number	12022: TTP Powernode and MFM/Manchester physical layer 12023: TTP Powernode and MFM/Manchester physical layer; with housing and power supply

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